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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/698,241 | 10/30/2000 | Yasuo Suda | 35.G2666 | 6331 |

5514 7590 02/26/2004

FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

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| EXAMINER |
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JERABEK, KELLY L

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| ART UNIT | PAPER NUMBER |
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2612

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DATE MAILED: 02/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/698,241

Applicant(s)

SUDA, YASUO

Examiner

Kelly L. Jerabek

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2 and 4.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1 and 3 rejected under 35 U.S.C. 102(b) as being anticipated by
Karasaki et al. US 4,808,808.**

Re claim 1, Karasaki discloses in figures 3 and 4, a focus detecting optical system. The focus detecting optical system includes a CCD (20) that performs photoelectric conversion of light beams (1a, 1b) emitted from a first and a second pupil area (col. 4, lines 37-46). The light is split into two beams by being passed through a pair of openings (16a, 16b) of a light-blocking member (16). The focus condition of the

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image pickup optical unit is set according to the outputs of the photoelectric conversion means (col. 1, lines 44-48).

Re claim 3, the CCD (20) disclosed by Karasaki includes photoelectric conversion elements that are adjacent to one another. Since two secondary images (1a, 1b) are formed on the CCD each of the conversion elements corresponding to the first image (1a) is adjacent to the conversion elements corresponding to the second image (1b) (col. 4, lines 37-46; figs. 3 and 4). Furthermore, the invention prevents mutual interference between the two secondary images (1a and 1b) (col. 4, lines 58-62).

Claims 1 and 2 rejected under 35 U.S.C. 102(e) as being anticipated by Onuki US 2001/0045989.

Re claim 1, Onuki discloses in figure 1 an auto-focus camera including a CCD (111) that performs photoelectric conversion of light beams emitted from a first and a second pupil area (page 6, paragraph 125). The light is split into two beams by being passed through a series of mirrors (131, 134) and secondary image forming lenses (137). The focus condition of the image pickup optical unit is set according to the outputs of the photoelectric conversion means (page 7, paragraphs 142, 143).

Re claim 2, the light intercepting means may be removed from the optical path of the image pickup optical unit (page 6, paragraphs 126, 127; figure 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claim 4 rejected under 35 U.S.C. 103(a) as being unpatentable over
Karasaki in view of Horie et al. US 6,181,378.**

Re claim 4, Karasaki discloses all of the limitations according to claim 3.
However, Karasaki does not state that a color filter is placed in front of the CCD.

Horie discloses in figure 3 an image reading device that includes a CCD (16) and a focus condition judging system. A color filter unit (4) is placed in front of the CCD (16) to allow a color image to be captured. Therefore, it would have been obvious to include the color filter unit (4) placed in front of the CCD (16) as disclosed by Horie in the focus detecting optical system disclosed by Karasaki. Doing so would provide a means for allowing a color image to be captured and used in the focus detecting optical system.

**Claim 5 rejected under 35 U.S.C. 103(a) as being unpatentable over
Karasaki in view of Komiya US 5,624,890.**

Re claim 5, Karasaki discloses all of the limitations according to claim 1. However, Karasaki does not state that the light intercepting means is set in an optical path of the image pickup optical unit at the focus detection determined by the detecting means.

Komiya discloses in figure 1 a single-lens reflex camera with an automatic focusing apparatus. The automatic focusing apparatus includes a defocus amount detector (41) that calculates a defocus amount (D) that is sent to a motor (35). The motor then drives the photographic optical system (25) to the in-focus position (col. 10, lines 6-19). Karasaki mentions a focus detecting optical system but does not go into detail regarding the driving of the optical system based on the focus detection. Therefore, it would have been obvious to include the driving function of the automatic focusing apparatus as disclosed by Komiya in the focus detecting optical system disclosed by Karasaki. Doing so would provide a means for setting the light intercepting means in the optical path of the image pickup optical unit at the focus detection set by the detecting means.

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Claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Karasaki in view of Harada et al. US 6,108,036.

Re claim 5, Karasaki discloses all of the limitations according to claim 1. However, Karasaki does not state that a signal processing circuit is used to produce an image signal by adding the signals of the first and second photoelectric conversion means.

Harada discloses in figure 1 an imaging apparatus (1) including solid state imaging devices (14-16). The imaging devices (14-16) include light-receiving regions as shown in figure 9. The light receiving regions of lines in the imaging devices are added together to produce a single signal during a processing method called interlacing (col. 34, lines 23-41). Therefore, it would have been obvious to include the interlacing processing method as disclosed by Harada in the focus detecting optical system disclosed by Karasaki. Doing so would provide a means for producing an image signal by adding the signals of the first and second photoelectric conversion means.

Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Kelly Jerabek whose telephone number is (703) 305-8659. The examiner can normally be reached on Monday - Friday (8:00 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached at (703)-305-4929.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

The fax number for submitting all Official communications is (703) 872-9306.

The fax number for submitting informal communications such as drafts, proposed amendments, etc., may be faxed directly to the Examiner at (703) 746-3059.

KLJ


VU LE
PRIMARY EXAMINER